

Dexter has N coins having values $1, 2, 3, \dots, N$. He should select a subset of exactly K coins from those such that the selected coins sum to N . Find how many ways he can do it. Suppose, $N = 8, K = 3$ then he can select coins in 2 ways: $\{1,2,5\}, \{1,3,4\}$.

Input

First line of input is T (≤ 20) which is the number of cases. Then there are T lines each containing two numbers K ($1 \leq K \leq 10$) and N ($1 \leq N \leq 10^9$).

Output

Output the number of ways to choose K coins *MOD* 1000000007.

Sample Input

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3
4 10
3 8
4 231
```

Sample Output

```
1
2
80142
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